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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,116	03/19/2004	Eric J. Crabill	X-841-IC US	8509

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XILINX, INC
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EXAMINER

TREAT, WILLIAM M

ART UNIT PAPER NUMBER

2183

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,116

Applicant(s)

ERIC J. CRABILL

Examiner

William M. Treat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/19/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/19/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-5 are presented for examination.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Sollars (Patent No. 5,490,626).
4. Sollars taught the invention of claim 1 including an integrated circuit (col. 10, lines 35-50) having a microprocessor (col. 1, lines 13-19) comprising a configurable portion comprising one of a plurality of microcode sets, wherein each of the plurality of microcode sets is associated with a different set of macroinstructions (col. 3, line 49 through col. 4, line 49; col. 9, lines 18-21; col. 10, lines 50-60; Note that the EPROM, EEPROM, CMOS memory and Flash memory cited are all configurable/modifiable/writable.) and a non-configurable portion comprising sequencing logic that is the same for each one of the plurality of microcode sets (col. 11, lines 62-67; “While datapath 102 is illustrated with only one ALU 146, those skilled in the art will appreciate that, the present invention may also be practiced with a datapath 102 that includes more ALUs, e.g. one that allow the common PC update thread and/or implementing threads of different ISA to be executed in parallel.”).
5. As to claim 2, Sollars taught the integrated circuit of claim 1 wherein the microprocessor further comprises a datapath unit configured to execute each different set of macroinstructions (Col. 8, lines 18-38).

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6. As to claim 3, Sollars taught the integrated circuit of claim 2 wherein the datapath unit (102) is coupled to a configurable logic block (108). Note that applicant has merely required some form of coupling, and one sees clearly that the two are coupled in Fig. 1 as they must be for Sollars form of micro-instructions to act on the datapath.

7. As to claim 4, Sollars taught the integrated circuit of claim 1 wherein each microcode set of the plurality of microcode sets is associated with a microprocessor of a plurality of microprocessors (Col. 1, lines 14-25).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sollars (Patent No. 5,940,626) in view of Greenbaum (Patent No. 5,933,642).

10. Sollars taught the integrated circuit of claim 1 (paragraph 4, *supra*) but did not teach it as a field programmable gate array. However, Greenbaum taught it was known at the time of applicant's invention one of ordinary skill in the art could create a complete FPGA-based processor which was a dynamic instruction set architecture (ISA) computer (Col. 3, line 67 through Col. 4, line 8). Recreating a known invention in another technology, when individuals of ordinary skill in the art already know that it can be done and know how to do so, does not constitute an invention.

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

12. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

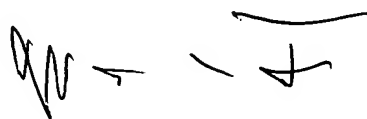
13. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1 and 5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of U.S. Patent No. 6,725,364. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 and 5 of the present application are merely broader claims to the patented invention of claims 1 and 4.

15. Any inquiry concerning this communication should be directed to William M. Treat at telephone number (571) 272-4175. The examiner works at home on Wednesdays but may normally be reached on Wednesdays by leaving a voice message using his office phone number. The examiner also works a flexible schedule but may normally be reached in the afternoon and evening on three of the four remaining weekdays.

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16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WILLIAM M. TREAT
PRIMARY EXAMINER